



Johnson Controls nominated Warren Wastewater Treatment Plant. Wastewater Plants are energy intensive yet have not widely used Performance Contracting as a means to upgrade aging infrastructure. The City of Warren has been progressive in its approach to step away from "business as usual" and forge ahead with comprehensive upgrades regardless of capital budget constraints or preconceived notions about the coexistence of energy efficiency and meeting permits. This project is a model for other plants to become more sustainable without compromising the integrity of their operation or their ability to maintain their DEQ permit.



**Leader Accepting the Award: David Monette,
Warren Wastewater Plant Division Head**

**Project Name and Location: Warren
Wastewater Treatment Plant, Warren Michigan**

Project Size: \$7,966,610

Term in Years: 15 Years

Annual Saving Guarantee: \$580,715

Total Savings Guarantee: \$11,000,000

Year was the project implemented: 2011-2014

List of ECMs:

- **Aeration Blowers-One 650 HP Centrifugal Blower**
- **New Aeration Controls**
- **Raw/Intermediate Sewage Pump Improvements and Variable Speed Drives**
- **Biological Phosphorous Removal**
- **HVAC Redesign and Replacement with EMC**
- **Plant-wide Power Management over SCADA**
- **Plant-wide Lighting Upgrade**
- **Building Envelope Improvements**
- **10 KW Solar Array**

Additional Project Highlights:

Performance contracting was used to fund critical infrastructure improvements in an environment where capital funding was scarce. These improvements will provide the plant the flexibility to be more efficient during periods of reduced flows due to the economic downturn.